

IN THE CLAIMS:

Listing of Claims:

Claims 1-26 (Canceled)

Claim 27 (Currently Amended): A differential unit of a motor vehicle for transmitting a driving force to a pair of driving wheels while absorbing a rotational difference there between, comprising:

a case;

a differential mechanism accommodated in the case;

a drive pinion shaft for transmitting the driving force to the differential mechanism, said drive pinion shaft rotatably supported in the case with at least two bearings ~~having an inner race, respectively~~; and

a tubular spacer having an inner diameter larger than an outer diameter of the drive pinion shaft, said spacer interposed between ~~the inner races of~~ the bearings such that the spacer covers the drive pinion shaft; and

said tubular spacer has at least one protruding section ~~integrally formed~~ on an inner surface thereof to protrude in a radial direction toward the drive pinion shaft, said protruding section being formed to extend along an [[entire]] inner peripheral direction of the tubular spacer and to have a cross sectional shape which is convex along a central ~~direction axis~~ of the tubular spacer so that an [[inner]] innermost surface of the protruding section facing the shaft is arched.

Claim 28 (Currently Amended): The differential unit according to claim 27, wherein said protruding section is configured so that said [[inner]] innermost surface of the protruding section is close to an outer surface of the drive pinion shaft.

Claim 29 (Currently Amended): The differential unit according to claim 27, wherein said protruding section is configured so that said [[inner]] innermost surface of the protruding section contacts with an outer surface of the drive pinion shaft.

Claim 30 (Previously Presented): The differential unit according to claim 27, wherein said protruding section is disposed at a central position along a central axial direction of the tubular spacer.

Claim 31 (Currently Amended): The differential unit according to claim 30, wherein said protruding section is configured so that [[an]] said [[inner]] innermost surface thereof is arched along an overall central axial direction of the tubular spacer.

Claim 32 (Previously Presented): The differential unit according to claim 27, wherein said protruding section is disposed at one end of the tubular spacer in a central axial direction of the tubular spacer.

Claim 33 (Currently Amended): The differential unit according to claim 27, wherein [[said]] two protruding section sections [[is]] are disposed at [[both]] opposite ends of the tubular spacer in a central axial direction of the tubular spacer[[,]] respectively.

Claim 34 (Currently Amended): The differential unit according to claim 33, wherein the protruding section sections disposed at both ends extends extend radially inward an equal amount at each said end.

Claim 35 (Currently Amended): The differential unit according to claim 33, wherein the protruding ~~section~~ sections disposed at both ends ~~extends~~ extend inward to a common diameter about the drive pinion shaft.

Claim 36 (Previously Presented): The differential unit according to claim 27, wherein said bearings positioned to opposite sides of said tubular spacer are non-identical.

Claim 37 (Currently Amended): The differential unit according to claim 36, wherein a first of said bearings is a [[pilot]] ball bearing and a second of said bearings is a tapered roller bearing.

Claim 38 (Previously Presented): The differential unit according to claim 27, wherein said protruding section comprises a plurality of projections formed on the inner surface of the spacer to project in a radial direction of the spacer.

Claim 39 (Previously Presented): The differential unit according to claim 38, wherein said plurality of projections are spaced apart at equal intervals in a circumferential direction of the spacer.

Claim 40 (New): The differential unit according to claim 39, wherein said plurality of projections comprises three projections spaced apart by 120° in the circumferential direction of the spacer.

Claim 41 (New): The differential unit according to claim 39, wherein said plurality of projections comprises four projections spaced apart by 90° in the circumferential direction of the spacer.

Claim 42 (New): The differential unit according to claim 38, wherein said protruding section is configured so that an innermost surface thereof is arched along an overall central axial direction of the tubular spacer.

Claim 43 (New): The differential unit according to claim 27, wherein said protruding section is integrally formed on the innermost surface of the spacer.

Claim 44 (New): The differential unit according to claim 43, wherein said protruding section and the spacer are monolithic.

Claim 45 (New): The differential unit according to claim 27, further comprising:
a third bearing; and
a second tubular spacer disposed in between one of said at least two bearings and said third bearing.

Claim 46 (New): The differential unit according to claim 27, wherein said protruding section extends along an entire inner peripheral direction of the tubular spacer.

Claim 47 (New): The differential unit according to claim 27, wherein said two bearings have an inner race respectively and said spacer is interposed between the inner races of said two bearings.

Claim 48 (New): A differential unit of a motor vehicle for transmitting a driving force to a pair of driving wheels while absorbing a rotational difference therebetween, comprising:
a case;
a differential mechanism accommodated in the case;

a drive pinion shaft for transmitting the driving force to the differential mechanism, said drive pinion shaft rotatably supported in the case with at least two bearings having an inner race, respectively; and

a tubular spacer having an inner diameter larger than an outer diameter of the drive pinion shaft, said spacer interposed between the inner races of the bearings such that the spacer covers the drive pinion shaft; and

said tubular spacer has at least one protruding section on an inner surface thereof to protrude in a radial direction toward the drive pinion shaft, said protruding section being formed to extend along an inner peripheral direction of the tubular spacer and to have a cross sectional shape which is convex along a central axis of the tubular spacer so that an inner surface of the protruding section is arched; and

wherein said protruding section is disposed at a central position along a central axial direction of the tubular spacer.

Claim 49 (New): The differential unit according to claim 48, wherein said protruding section is configured so that an innermost surface thereof is arched along an overall central axial direction of the tubular spacer.

Claim 50 (New): The differential unit according to claim 48, wherein said protruding section is integrally formed on the innermost surface of the spacer.

Claim 51 (New): The differential unit according to claim 27, wherein there are plurality of protruding sections axially spaced along said spacer.

Claim 52 (New): The differential unit according to claim 38, wherein said plurality of projections are spaced apart in a circumferential direction of the spacer and are disposed at a central position along a central axis direction of said tubular spacer.

Claim 53 (New): The differential unit according to claim 52, wherein said projections have a cross sectional shape that is arched and which extends along an overall central axial direction of said tubular spacer.

Claim 54 (New): The differential unit according to claim 27, wherein said at least one protruding section is positioned closer to a central region of said tubular spacer than an end region of said tubular spacer.